

**Notice of Allowability**

Application No.

10/787,082

Applicant(s)

ONO ET AL.

Examiner

Nikita Wells

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Application filed on 27 February 2004.
2. ☒ The allowed claim(s) is/are 1-25.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☒ CORRECTED DRAWINGS ( as "replacement sheets" ) must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948 ) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 020805.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 020805
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

Nikita Wells  
Primary Examiner  
Art Unit: 2881

*Allowable Subject Matter*

1. Claims 1-25 are allowed.
2. The following is an examiner's statement of reasons for allowance:

With respect to the independent claims 1, 4, 10-13, and 17, prior art fails to disclose or make obvious, in combination with other recited features of the claim limitations, a deflector in a charged particle beam exposure apparatus comprising: an electrode substrate having a plurality of through holes and an electrode pair made up of first and second electrodes which oppose side walls of each through hole in order to control a locus of a charged particle beam passing through the through hole; and a wiring substrate having connection wiring pads connected to said electrode pairs of said electrode substrate to individually apply a voltage to said electrode pairs, wherein said electrode substrate and substrate are bonded via wiring said connection wiring pads of said wiring substrate.

With respect to the independent claims 19-24, prior art fails to disclose or make obvious, in combination with other recited features of the claim limitations, a deflector comprising: an electrode substrate having a plurality of through holes and an electrode pair made up of first and second electrodes which oppose side walls of each through hole in order to control a locus of a charged particle beam passing through the through hole; and a wiring substrate obtained by stacking a first wiring layer having a first interconnection for applying a first voltage to said first electrode and a second wiring layer having a second interconnection for applying a second voltage to said second electrode.

The dependent claims 2-3, 7-9, 14-16, and 18 are allowable by virtue of their dependence upon the independent claim 1. The dependent claims 5 and 6; and 25; are allowable by virtue of their dependence upon the independent claims 4 and 22, respectively.

### *Drawings*

3. Figures 1, 2, 3, 4A, and 4B, should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Conclusion*

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Both Saitou et al. (5,162,240) and Yasuda et al. (5,260,579) disclose a charged particle beam exposure apparatus and method for fabricating electric circuit patterns using thick and thin film hybrid multilayers wiring substrates.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 2881

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikita Wells whose telephone number is (571) 272-2484. The examiner can normally be reached on 8:30 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (571) 272-2477. The central fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Nikita Wells, Primary Examiner  
Art Unit 2881  
February 8, 2005